

Grizzly ***Industrial, Inc.***®

MODEL T10097 WET GRINDER



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**
(FOR MODELS MANUFACTURED SINCE 07/08) #JB10797 PRINTED IN CHINA



WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

INTRODUCTION

Manual Accuracy

We are proud to offer this document with your new machine! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the machine we used when writing this manual. However, sometimes we still make an occasional mistake.

Also, owing to our policy of continuous improvement, your machine may not exactly match the manual. If you find this to be the case, and the difference between the manual and machine leaves you in doubt, immediately call our technical support for updates or clarification.

Before calling, find the manufacture date of your machine by looking at the date stamped into the machine ID label (see below). This will help us determine if the manual version you received matches the manufacture date of your machine.

		MODEL GXXXX MACHINE NAME	
SPECIFICATIONS		WARNING!	
Motor:		Manufacture Date of Your Machine 1. Always wear eye protection when operating this machine. 2. Always wear the motor run stopper and disconnect power before adjustments, maintenance, or service. 3. DO NOT expose to rain or dampness. 4. DO NOT modify this machine in any way. 5. DO NOT remove safety guards. 6. Never leave machine running unattended. 7. DO NOT operate under the influence of drugs or alcohol. 8. Maintain machine carefully to prevent accidents.	
Specification:			
Specification:			
Specification:			
Weight:			
Date	Serial Number		
Manufactured for Grizzly in Taiwan			

For your convenience, we post all available documentation on our website at www.grizzly.com. Any updates to this document will be reflected on our website as soon as complete.

Contact Info

We stand behind our tools. If you have any questions or need help, use the information below to contact us. Before contacting, please get the serial number and manufacture date of your machine. This will help us help you faster.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
E-Mail: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

SECTION 1: SAFETY

WARNING

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

DANGER

Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

WARNING

Safety Instructions for Machinery

- 1. READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
- 5. WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **BE AWARE THAT CERTAIN WOODS MAY CAUSE AN ALLERGIC REACTION** in people and animals, especially when exposed to fine dust. Make sure you know what type of wood dust you will be exposed to and always wear an approved respirator.



WARNING

Additional Safety Instructions for Grinders

- 1. EYE PROTECTION.** Grinding causes small particles to become airborne at a high rate of speed that could impact your eyes, causing severe injury. ALWAYS wear safety glasses when using this machine.
- 2. WHEEL SPEED RATING.** Wheels operated at a faster speed than rated for may break or fly apart and strike you with great force. Before mounting a new wheel, be sure the wheel RPM rating is equal to or higher than the speed of the grinder.
- 3. WHEEL FLANGES.** Only use the flanges included with the grinder when mounting wheels. Other flanges may not properly secure the wheel or could cause it to break apart, resulting in serious impact injuries.
- 4. RING TEST.** Perform a "ring test" on grinding wheels before installation to ensure that they are safe to use. A wheel that does not pass the ring test may break or fly apart during operation, resulting in serious impact injuries.
- 5. TRANSPORT.** Carry the grinder by holding underneath the base. DO NOT use the universal support as a handle. It can slide out, allowing the grinder to fall and cause crushing injuries and property damage.
- 6. LUNG PROTECTION.** Grinding produces hazardous dust, which may cause long-term respiratory problems if breathed. Always wear a NIOSH approved dust mask or respirator when grinding.
- 7. SIDE GRINDING.** Grinding on the side of wheels can cause them to break and fly apart, resulting in serious impact injuries.—unless the wheel is rated for side grinding.
- 8. HAND/WHEEL CONTACT.** Grinding wheels have the capability of removing a lot of skin fast. Keep a firm grip on the workpiece and position your hands at a safe distance away when grinding. Avoid wearing gloves, as they may get caught in the grinding wheel and cause even more serious entanglement injuries.
- 9. TOOL REST POSITION.** If the universal support tool rest or jig is too far away from the wheel, the workpiece may be pulled down, causing loss of control and pulling your hand into the grinding wheel. Keep the the universal support or jig within $\frac{1}{8}$ " from the wheel when operating.



MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL T10097 WET GRINDER

Overall Dimensions:

Height..... 12"
Width..... 18"
Depth..... 11"
Net Weight 21 lbs.
Footprint..... 11 1/2" x 11"

Main Specifications:

Arbor Diameter..... 1/2"
Grinding Wheel Grit 220
Grinding Wheel Size 8" x 1 1/2" (200 x 40mm)
Grinding Wheel Material Aluminum Oxide
Stropping Wheel Size 8" x 1 3/16" (200 x 30mm)
Stropping Wheel Material..... ABS/Leather
Wheel Speed 120 RPM

Motor:

Type TEFC Capacitor Start Induction
Horsepower..... 1/8 HP
Phase/Voltage..... Single/110V
Amps..... 1.2A
Cycle/RPM 60Hz/1725 RPM

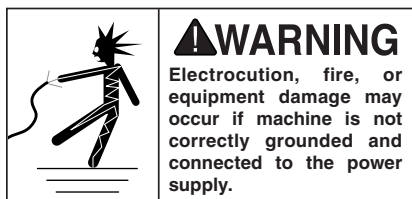
Features:

..... Universal Tool Support 12mm
..... Paddle Switch w/ Disabling Key
..... Water Reservoir
..... Included 220 Grit Aluminum Oxide Grinding Wheel
..... Included Leather Stropping Wheel
..... Included Stropping Paste
..... Included Angle Guide

SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by a qualified electrician in accordance with all applicable codes and standards.



Full Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or the sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating 1.2 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements in the following section.

Circuit Requirements

This machine is prewired to operate on a 110V power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 110V
Cycle 60Hz
Phase Single-Phase
Minimum Circuit Size 15A

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

⚠ CAUTION

For your own safety and protection of property, consult a qualified electrician if you are unsure about wiring practices or electrical codes in your area.

Note: The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult a qualified electrician to ensure that the circuit is properly sized for safe operation.

Grounding & Plug Requirements

This machine **MUST** be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

This machine is equipped with a power cord that has an equipment-grounding wire and a grounded plug (similar to the figure below). The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING

Serious injury could occur if you connect the machine to power before completing the setup process. DO NOT connect to power until instructed later in this manual.

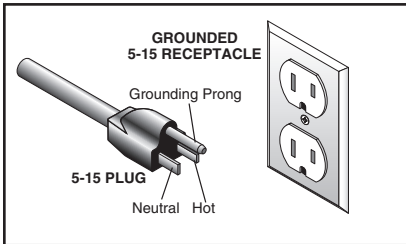
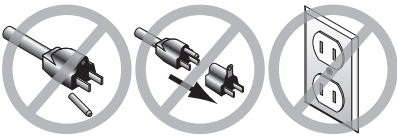


Figure 1. Typical 5-15 plug and receptacle.

⚠ CAUTION



SHOCK HAZARD!

Two-prong outlets do not meet the grounding requirements for this machine. Do not modify or use an adapter on the plug provided—if it will not fit the outlet, have a qualified electrician install the proper outlet with a verified ground.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size 16 AWG

Maximum Length.....50 ft.

SECTION 3: SETUP

Unpacking

The Model T10097 was carefully packed when it left our warehouse. If you discover any parts are damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.* Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.* When you are completely satisfied with the condition of your shipment, you should inventory the contents.

Inventory

Model T10097 Inventory (Figure 2)

- A. T10097 Wet Grinder 1
- B. Universal Grinding Jig..... 1
- C. Angle Guide 1
- D. Polishing/Honing Paste..... 1
- E. Universal Support 1

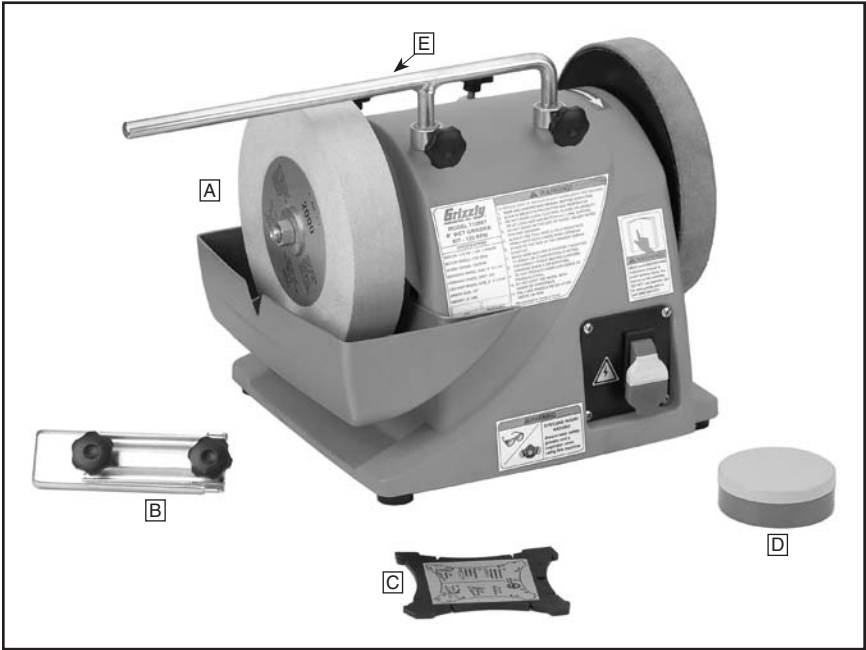


Figure 2. Model T10097 inventory.

Site Considerations

Bench Load

Refer to the **Machine Data Sheet** on **Page 7** for the weight and size specifications of your machine. Some workbenches may require additional reinforcement to support both the machine and the forces applied during use

Placement Location

See **Figure 3** for the minimum working clearances. Remember that the Model T10097 Wet Grinder has no specific front or back side and must be repositioned depending on the desired grinding/sharpening/honing action.

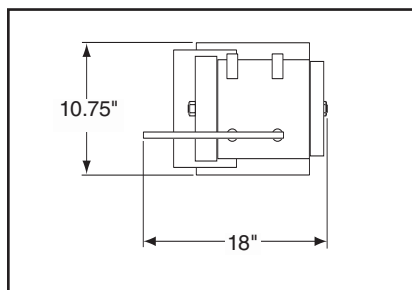


Figure 3. Minimum working clearances.



Wheel Inspection

Do not assume that a wheel is in sound condition just because it is new—often damage can occur in shipping, with age, or with prolonged exposure to moisture. Inspect every wheel for damage.

First, do a **Visual Inspection**. Look for any cracks, chips, nicks or dents in the surface of the wheel. If you see any of these, DO NOT use the wheel.

Second, do a **Ring Test**. This test will give you an indication of any internal damage that may not be obvious during a visual inspection.

To perform a Ring Test:

1. Make sure the wheel that you test is clean and dry; otherwise, you may get false results.
2. Hang the wheel in the air with a piece of cord or string looped through the hole in the center.
3. At the spots shown in **Figure 4**, gently tap the wheel with a light non-metallic device such as the handle of a screwdriver or a wooden mallet.

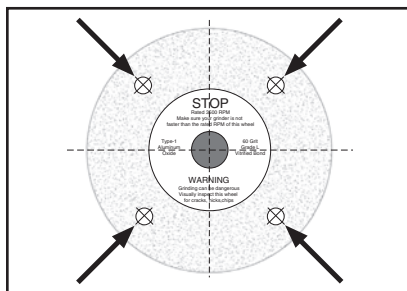


Figure 4. Tapping locations when performing a ring test.

4. An undamaged wheel will emit a clear metallic ring or “ping” sound in each of these spots. A damaged wheel will respond with a dull thud that has no clear tone.
5. If you determine from the ring test that the wheel is damaged, DO NOT use it!

Finally, check that the **grinding surface is square**. Lower the universal support to $\frac{1}{16}$ "– $\frac{1}{8}$ " above the grinding wheel. Using the universal support as a visual guide, check that the entire surface of the grinding wheel is consistent and parallel to the universal support, as shown in **Figure 5**. (If this is not the case, see **Wheel Dressing** on **Page 19**.)

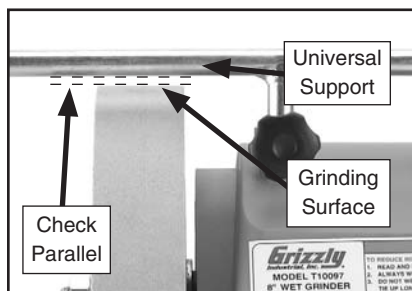


Figure 5. Parallel check.

Test Run

Once your Model T10097 is positioned, test run the machine to make sure it runs properly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review the **Troubleshooting** on **Page 20**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure you have read the safety instructions at the beginning of the manual and that the grinder is set up properly.
2. Make sure all tools and objects used during setup are cleared away from the grinder.
3. Make sure the switch is in the OFF position.
4. Connect the grinder to the power source.
5. Turn the grinder **ON**. Make sure that your hand stays poised over the switch in case you need to quickly turn the machine OFF.
6. Listen and watch for abnormal noises or actions. Under normal conditions, the grinder will make a humming noise, with only minor vibration. A slight wobble from one or both wheels is normal and will not affect grinding performance.
 - Investigate strange or unusual noises and correct them before operating the machine further. Always disconnect the machine from power before investigating or correcting potential problems.
7. Turn the grinder **OFF**.
8. Pull out the switch disabling key and attempt to turn the machine **ON**.
 - If the grinder does not start, the switch disabling feature is working.
 - If the grinder starts, turn it **OFF**. The switch disabling feature is not working. This safety feature must work properly before proceeding. Call Tech Support for help.

SECTION 4: OPERATIONS

⚠ WARNING

Damage to your eyes and lungs could result from using this machine without proper protective gear. Always wear safety glasses/face shield and a dust mask/respirator when operating this machine.



NOTICE

If you have never used this type of machine or equipment before, WE **STRONGLY RECOMMEND** that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Grinding Tips

The grinder is a safe tool when used properly. In addition to the safety instructions in this manual, the most important safety consideration is to use common sense at all times. What may be okay in one situation may not be safe in another.

Here are some tips to keep in mind while grinding:

- Always be sure the grinding wheel is wet before grinding by filling the reservoir.
- Wear the proper protective clothing. Safety glasses/face shield and a dust mask should be worn when using this machine.
- Grasp the workpiece firmly and properly support it on the universal support/tool rest during grinding. Maintain even pressure and control of the workpiece when grinding.
- Concentrate on the task at hand. STOP grinding if other people are distracting you or your mind is on something else.

⚠ WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.



⚠ CAUTION

Although the Model T10097 Wet Grinder wheels are designed specifically for slow rotation, there is still the possibility that blades and tools being sharpened on either wheel could be dislodged from your grasp. Be sure that satisfactory space is allocated between the grinder and areas where others are working. Always wear safety glasses and keep the universal support in the proper position when grinding or sharpening.

Positioning the Universal Support

The Model T10097 Wet Grinder is equipped with a universal support that serves as a tool rest and as an attachment point for task-specific accessories. It can be attached in two positions, allowing for grinding *with* or *against* the rotation direction of the grinding wheel. The tightening knobs on each attachment point allow the universal support to be adjusted and locked in position, depending on the specific task required.

Working with the rotation yields much more precise results and removes less material. Use this method for finer tools, such as knives or carving tools.

Working against the rotation removes large amounts of materials quickly but does not yield precise results. Use this method for coarse tools such as axes.

Grinding Against Wheel Rotation

1. DISCONNECT GRINDER FROM POWER!
2. Position the machine with the ON/OFF switch facing you.

CAUTION

Do not make adjustments while the machine is running. Disconnect the grinder from power before attempting to make adjustments to the universal support, water reservoir, changing wheels or the angle guide.

3. Attach the universal support in the vertical mounts as shown in **Figure 6**. Be sure it is securely positioned and will not move during grinding. Re-connect the grinder to power.
3. Rest your workpiece on the universal support with the sharpened edge pointing away from you. Grind your workpiece in the indicated grinding area.

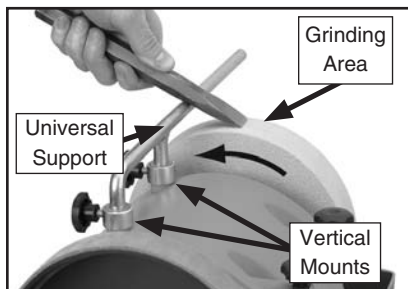


Figure 6. Vertical mount.

NOTICE

The universal support should never be placed in the vertical mounts when using the leather stropping wheel. Working against the direction of rotation in this case will cause severe damage to the leather wheel.

Grinding With Wheel Rotation

1. DISCONNECT GRINDER FROM POWER!
2. Position the machine with the ON/OFF switch facing away from you.
3. Attach the universal support into the horizontal mounts as shown in **Figure 7**. Be sure it is securely positioned and will not move during grinding. Reconnect the grinder to power.
4. Rest your workpiece on the universal support with the sharpened edge pointing away from you. Grind your workpiece in the indicated grinding area.

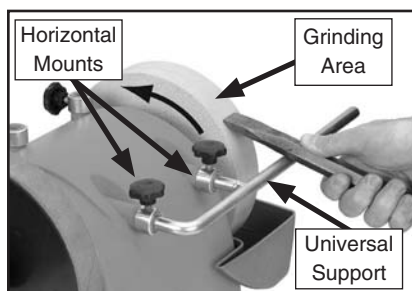


Figure 7. Horizontal mount.

Grinding Jig

The Model T10097 Wet Grinder includes a grinding jig for securing a variety of tools during use.

To use the grinding jig:

1. DISCONNECT GRINDER FROM POWER!
2. Slide the grinding jig onto the universal support as shown in **Figure 8**.

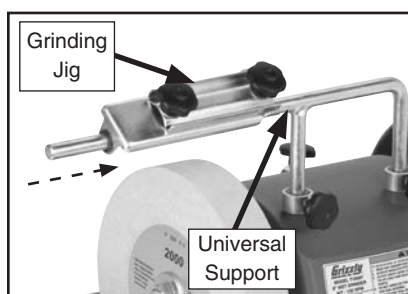


Figure 8. Attaching grinding jig.

3. Insert the tool into the jig clamp, as shown in **Figure 9**, then use the angle guide, as described in **Angle Guide** on **Page 15**, to set the grinding angle.

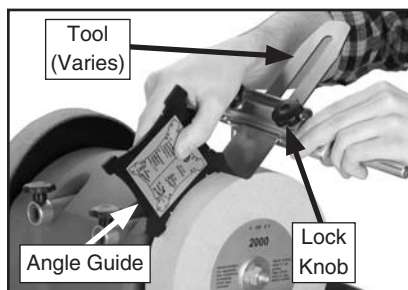


Figure 9. Clamping tool.

4. Once the grinding angle is set, tighten both lock knobs (**Figure 9**).
5. Re-connect the grinder to power and perform the operation.

Angle Guide

The Model T10097 Wet Grinder comes with an angle guide to help identify and maintain the cutting angle on a variety of tools.

To use the angle guide:

1. Locate the eight measuring notches on the angle finder (**Figure 10**).

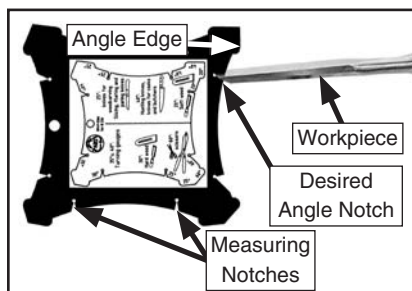


Figure 10. Measuring notches.

2. Find the angle notch that best fits the tool you wish to grind by placing the beveled edge of the workpiece into each notch until you find the notch that most closely matches the angle of the beveled edge.
3. Place the angle guide on the wheel with the desired angle notch (found in **Step 2**) against the wheel and adjacent to the universal support (**Figure 11**).

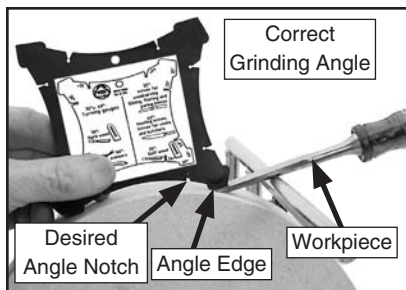


Figure 11. Angle guide usage.

4. Adjust the positioning of the workpiece and the universal support height as necessary so that the sharpened edge of the workpiece is flat against both the grinding wheel and the angle edge on the angle guide as shown in **Figure 11**. For precision grinding attachments, see **Accessories** on **Page 18**.

Water Reservoir

The Model T10097 Wet Grinder is designed for wet grinding and should never be used without water.

The mounting tabs on the reservoir serve as hooks to attach to the reservoir mounting slots (**Figure 12**).

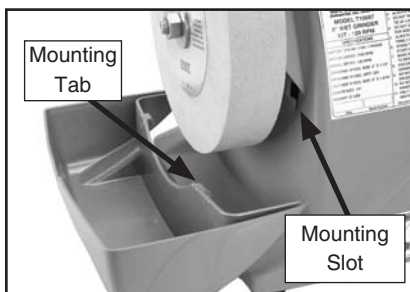


Figure 12. Reservoir mounting positions.

⚠ CAUTION

DO NOT allow the grinding wheel to stay immersed in water for long periods of time without running. The water can cause the wheel to become waterlogged and unbalanced and may cause sections of the wheel to break off when the grinder is started. Always empty or remove the reservoir when the grinder will not be used.

NOTICE

DO NOT attempt to use the grinding wheel without filling the reservoir with water. Overheating caused by lack of lubrication could damage the grinding wheel, as well as the tool or blade you are grinding. Ensure that the reservoir is filled with clean water. Sediment-filled water can clog the wheel and decrease the effectiveness of the grinder.

To fill and position the reservoir:

1. Make sure the grinder is disconnected from power and that the grinding wheel is not rotating.
2. Remove reservoir, clean it out, and fill with water to just below the V-shaped notch.
3. Attach the reservoir to the grinder.



Figure 13. Grinding position.

Here are some tips for using your wet grinder water reservoir:

- Check the water level before every use and be sure the wheel is wet before you begin grinding. **DO NOT** use the grinder without water.
- Leaving the grinding wheel stored in water will cause damage to the wheel and create potential hazards because the wheel will become unbalanced. Drain or remove the reservoir when not in use.
- Empty, rinse, and refill the reservoir regularly. This prevents metal and stone from accumulating in the reservoir.
- Place a magnet in the reservoir to catch and collect metal filings. This will help prevent excessive metal accumulation on the grinding wheel.

Sharpening

The leather stropping wheel on the Model T10097 and the included abrasive stropping paste can be used to obtain a razor sharp edge on many tools. Before use, the stropping wheel must be properly prepared.

NOTICE

The leather stropping wheel may wobble slightly during use. This is normal and will not affect the performance of the wheel or the results of the sharpening process.

The preparations below will be sufficient for sharpening five to ten tools. If you notice a drop in sharpening performance or have sharpened more than ten tools, repeat as necessary.

To prepare the stropping wheel:

1. DISCONNECT GRINDER FROM POWER!
2. Secure the universal support in the horizontal mounts so that sharpening will be performed with the direction of rotation.

CAUTION

Never sharpen against the direction of rotation. The edge of the tool may dig into the leather wheel, damaging the wheel and causing the tool to eject from the machine. This could result in personal injury or property damage.

3. Evenly apply a light machine oil to the leather wheel. Use enough oil to provide a thorough coating, but not so much as to saturate the leather and result in dripping.
4. Apply a thin coat of abrasive honing paste to the leather wheel using a wooden spreader or similar device. Distribute the paste evenly by hand-turning the wheel while spreading.
5. Turn the machine **ON** and continue to distribute the paste, still using the wooden spreader. Move the spreader lightly in a circular motion across the wheel.
6. Once the paste is evenly distributed, begin sharpening.

SECTION 5: ACCESSORIES

T10023—Accessory Kit #1

Includes fixtures for sharpening small knives, large knives, scissors and axes.



Figure 14. Model T10023

T10024—Accessory Kit #2

Includes a stone dresser and fixtures for sharpening scrapers, screwdrivers and hollow chisels.



Figure 15. Model T10024.

T10025—Sharpening Jig.

Jig for sharpening 16" planer blades sharpens all planer and jointer blades up to 16" long.



Figure 16. Model T10025.

H5891, H5892 Diamond Dressers

Industrial diamond for dressing grinding wheels. 8¼" long round body with knurled grip for maximum control. Includes protective rubber end cap.

Model H5891 ¼ Carat.

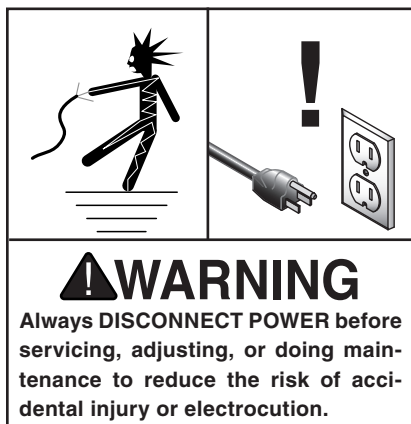
Model H5892 ¾ Carat.



Figure 17. Models H5891 & 5892.

Call 1-800-523-4777 To Order

SECTION 6: MAINTENANCE



For optimum performance, routinely check the condition of the following items and repair or replace them as necessary:

- Cracked or loose grinding wheel.
- Loose hardware.
- Bent universal support.
- Worn switch.
- Worn or damaged cords and plugs.
- Any other condition that could hamper the safe operation of this machine.

Wheel Dressing

Depending on the type of grinding you do, the grinding wheel may require periodic dressing.

A variety of dressing tools are available (see **Accessories** on **Page 18**) and can be used to restore the abrasive quality of the wheel surface and bring the wheel edge back to a square form.

Refer to the instructions that accompany your dressing accessory for complete details on how to properly dress a wheel.

Grinding Wheels

The grinding wheel should be inspected before every use. Use the ring test method described in **Wheel Inspection** on **Page 10** to verify the structural integrity of the wheel. Take care when storing grinding wheels to avoid potential moisture damage, being dropped, or getting dropped on.

Wheel Replacement

To replace the grinding or stropping wheel:

1. DISCONNECT GRINDER FROM POWER!
2. Hold the wheel to keep it from turning and remove the arbor nut or knob that holds the wheel on.
3. Remove the outer washer and wheel.
4. Install the new wheel, then replace the washer and nut or knob.
5. Dress the wheel, if necessary.

Water Reservoir

Be sure to periodically empty, rinse and refill the water reservoir with clean water depending on frequency of use. Failing to do so can lead to a buildup of sediment on the wheel itself, reducing grinding performance.

SECTION 7: SERVICE

Troubleshooting

Motor and Electrical

Symptom	Possible Cause	Solution
Motor will not start; fuses or circuit breakers blow	1. Disabling key is at fault. 2. Open circuit in motor or loose connections. 3. Start capacitor is at fault. 4. Short circuit in motor or loose connections. 5. Incorrect fuses or circuit breakers in power supply.	1. Install/replace disabling key; replace switch. 2. Inspect/repair all lead connections on motor for loose or open connections. 3. Replace start capacitor. 4. Inspect all connections on motor for loose or shorted terminals or worn insulation. 5. Install correct fuses or circuit breakers.
Motor slows, stops, or will not start; fuses or circuit breakers blow.	1. Motor overloaded. 2. Short circuit in motor or loose connections.	1. Reduce load on motor. 2. Inspect connections on motor for loose or shorted terminals or worn insulation.

Grinder Operations

Symptom	Possible Cause	Solution
Lines on surface of workpiece.	1. Impurity on wheel surface. 2. Workpiece not being held tightly. 3. Improperly dressed wheel.	1. Dress the grinding wheel. 2. Use a holding device to firmly retain the workpiece. 3. Dress the grinding wheel.
Wheel dulls quickly, grit falls off.	1. Depth of cut too great. 2. Poor wheel dress. 3. Defective wheel bonding.	1. Decrease the pressure of the workpiece into wheel. 2. Dress the wheel. 3. Consult manufacturer of grinding wheel.
Wavy condition on surface of workpiece.	1. Machine is vibrating. 2. Workpiece is not held in place firmly. 3. Wheel face uneven.	1. Make sure machine is securely positioned on a level surface. 2. Use a holding device to firmly retain the workpiece. 3. Dress the grinding wheel.
Grinding wheel clogs.	1. Poor wheel dress. 2. Wrong material is being ground. 3. Dirty water in reservoir.	1. Dress the wheel. 2. Grind ferrous metals only. 3. Drain and refill reservoir.
Excessive vibrations from machine.	1. Poor wheel dress. 2. Wheel is water-logged. 3. Machine is positioned on uneven surface.	1. Dress the wheel. 2. Allow wheel to dry, then inspect wheel, replace if needed. 3. Reposition machine.
Stropping wheel loses performance.	1. Insufficient wheel preparation. 2. Wheel is damaged/worn.	1. Prepare wheel. 2. Replace wheel.

SECTION 8: WIRING

These page are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

⚠ WARNING

Wiring Safety Instructions

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

MODIFICATIONS. Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved aftermarket parts.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

CIRCUIT REQUIREMENTS. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

COLOR KEY

BLACK		BLUE		YELLOW		LIGHT BLUE	
WHITE		BROWN		YELLOW GREEN		BLUE	
GREEN		GRAY		PURPLE		WHITE	
RED		ORANGE		PINK		TURQUOISE	

Wiring Diagram



Figure 18. Switch connections.

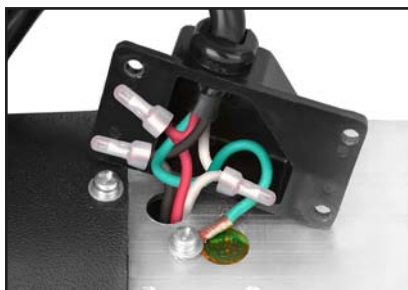
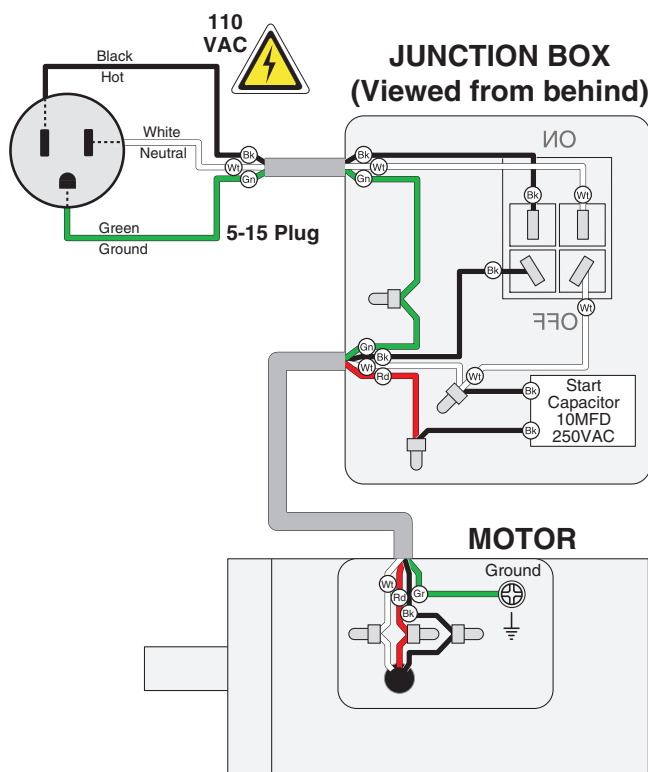
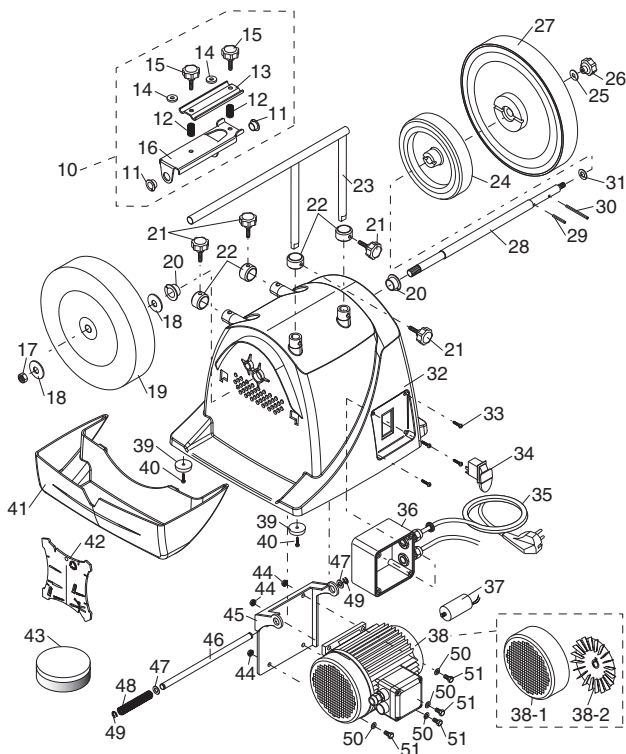


Figure 19. Motor connections.



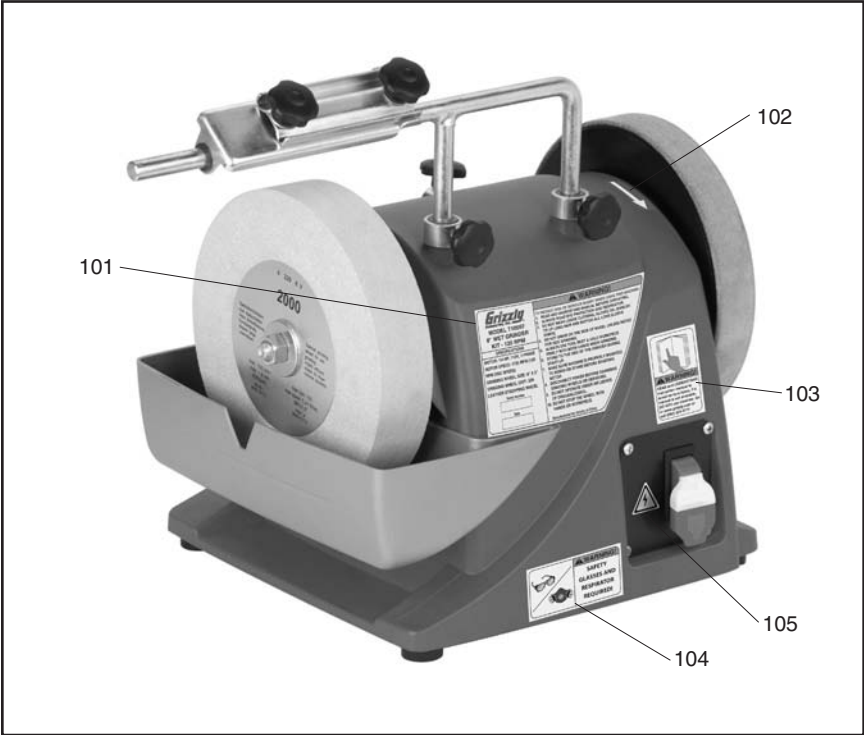
SECTION 9: PARTS



REF PART #	DESCRIPTION
10	PT10010039 GRINDING JIG
11	PT10010039-1 BUSHING
12	PT10010039-2 COMPRESSION SPRING
13	PT10010039-3 CLAMP PLATE
14	PW03M FLAT WASHER 6MM
15	PT10010039-5 KNOB M6-1 X 16
16	PT10010039-6 BASE PLATE
17	PN48 ARBOR NUT 1/2-13 LH
18	PW06M FLAT WASHER 12MM
19	PT10097019 GRINDING WHEEL
20	PT10097020 ARBOR BUSHING
21	PT10010039-5 KNOB M6-1 X 16
22	PT10097022 LOCK COLLAR
23	PT10010003 TOOL REST
24	PT10097024 DRIVE WHEEL
25	PW01M FLAT WASHER 8MM
26	PT10097026 KNOB M8-1.25
27	PT10010012 STROPPING WHEEL
28	PT10097028 MOTOR SHAFT
29	PRP56M ROLL PIN 4 X 25
30	PRP23M ROLL PIN 4 X 44
31	PW06M FLAT WASHER 12MM

REF PART #	DESCRIPTION
32	PT10097032 HOUSING
33	PHTEK18 TAP SCREW #10 X 5/8
34	G8988 ON/OFF SWITCH
35	PT10097035 POWER CORD
36	PT10097036 SWITCH HOUSING
37	PC010 S CAPACITOR 10M 250V 1-1/4 X 1-3/4
38	PT10097038 MOTOR 1/8 HP 110V
38-1	PT10097038-1 MOTOR FAN COVER
38-2	PT10097038-2 MOTOR FAN
39	PT10097039 RUBBER FOOT
40	PHTEK36 TAP SCREW #6 X 3/8
41	PT10097041 WATER RESERVOIR
42	PT10097042 ANGLE GUIDE
43	PT10010002 HONING PASTE
44	PN01M HEX NUT M6-1
45	PT10097045 MOTOR PLATE
46	PT10097046 MOTOR PLATE SHAFT
47	PW04M FLAT WASHER 10MM
48	PT10097048 COMPRESSION SPRING
49	PEC03M E-CLIP 10MM
50	PW03M FLAT WASHER 6MM
51	PB83M HEX BOLT M6-1 X 16

Warning Labels Breakdown & Parts List



REF	PART #	DESCRIPTION
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101	PT10097100	MACHINE ID LABEL
102	PT10010101	DIRECTION LABEL
103	PLABEL-12C	READ MANUAL 1.5W X 2.5H
104	PT10097103	RESPIRATOR/GLASSES WARNING
105	PLABEL-14B	ELECTRICITY WARNING 0.5"

WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine **MUST** replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.



WARRANTY CARD

Name _____
Street _____
City _____ State _____ Zip _____
Phone # _____ Email _____ Invoice # _____
Model # _____ Order # _____ Serial # _____

*The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **All information is strictly confidential.***

1. How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website Other: _____

2. Which of the following magazines do you subscribe to?

____ Cabinet Maker	____ Popular Mechanics	____ Today's Homeowner
____ Family Handyman	____ Popular Science	____ Wood
____ Hand Loader	____ Popular Woodworking	____ Wooden Boat
____ Handy	____ Practical Homeowner	____ Woodshop News
____ Home Shop Machinist	____ Precision Shooter	____ Woodsmith
____ Journal of Light Cont.	____ Projects in Metal	____ Woodwork
____ Live Steam	____ RC Modeler	____ Woodworker West
____ Model Airplane News	____ Rifle	____ Woodworker's Journal
____ Modeltec	____ Shop Notes	____ Other:
____ Old House Journal	____ Shotgun News	

3. What is your annual household income?

____ \$20,000-\$29,000	____ \$30,000-\$39,000	____ \$40,000-\$49,000
____ \$50,000-\$59,000	____ \$60,000-\$69,000	____ \$70,000+

4. What is your age group?

____ 20-29	____ 30-39	____ 40-49
____ 50-59	____ 60-69	____ 70+

5. How long have you been a woodworker/metalworker?

____ 0-2 Years	____ 2-8 Years	____ 8-20 Years	____ 20+ Years
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6. How many of your machines or tools are Grizzly?

____ 0-2	____ 3-5	____ 6-9	____ 10+
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7. Do you think your machine represents a good value? ____ Yes ____ No

8. Would you recommend Grizzly Industrial to a friend? ____ Yes ____ No

9. Would you allow us to use your name as a reference for our customers in your area?

Note: *We never use names more than 3 times.* ____ Yes ____ No

10. Comments: _____

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BELLINGHAM, WA 98227-2069



TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Authorization Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901

E-Mail:
techsupport@grizzly.com

Web Site: <http://www.grizzly.com>

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